



# **CITY OF SANTA BARBARA**

## **COUNCIL AGENDA REPORT**

**AGENDA DATE:** December 8, 2009

**TO:** Mayor and Councilmembers

**FROM:** Engineering Division, Public Works Department

**SUBJECT:** Contract For Design Of The El Estero Wastewater Treatment Plant Influent Pump Replacements

### **RECOMMENDATION:**

That Council authorize the Public Works Director to execute a City Professional Services contract with the firm of Brown and Caldwell Engineers (Brown & Caldwell) in the amount of \$254,119, for design services for El Estero Wastewater Treatment Plant (El Estero) Influent Pump Replacements, and authorize the City General Services Manager to approve expenditures of up to \$25,500 for extra services by Brown and Caldwell that may result from necessary changes in the scope of design work.

### **DISCUSSION:**

The Influent Pumps at El Estero pump an average of 8 million gallons per day (MGD) of untreated wastewater approximately 70 feet in elevation to the first of the El Estero treatment tanks, the grit chamber, from which point the wastewater flows by gravity through the remaining treatment processes. The pumps are capable of handling wet weather flows in excess of 30 MGD. Three of the existing pumps were installed in the 1970's, and a fourth pump made by a different manufacturer was installed in 2006. The fourth pump did not perform as expected, has had excessive maintenance requirements and is being replaced along with the other three pumps.

Brown and Caldwell was contracted to evaluate and make recommendations for rehabilitation or replacement of the El Estero existing pumps. Brown and Caldwell's initial approach was to rehabilitate the existing pumps. However, the scope of the rehabilitation was so extensive that staff determined it would be more cost effective to replace the pumps. Two of the four new pumps will be smaller, and will be used during low flow periods, providing for improved operational and energy efficiency. Overall pumping capacity and redundancy will be maintained by having four pumps.

Design services will include pump replacement plans and specifications of pumps, ventilation improvements to the wet well and headworks area, structural replacement of existing pump pads, control strategy, process and instrumentation diagrams, electrical design, asset management tagging, and bid support.

#### DESIGN PHASE CONSULTANT ENGINEERING SERVICES

Staff recommends that the City Council authorize the Public Works Director to execute a contract with Brown and Caldwell in the amount of \$279,619, which includes a 10% change order authority for the design and preparation of bid plans and specifications for the replacement of the influent pumps. Brown and Caldwell, which will provide the City with a highly qualified engineering team, is a participant in the City's Three-year Pre-qualified Engineering Services Program and is experienced in this type of work and knowledgeable of the issues and needs for the replacement of the pumps.

#### BUDGETARY/FINANCIAL INFORMATION:

The following summarizes all estimated total Project costs:

##### ESTIMATED TOTAL PROJECT COST

Design (by Contract)	\$279,619
Other Design Costs – (by City staff)	\$40,000
<b>Subtotal</b>	<b>\$319,619</b>
Estimated Construction Contract w/Change Order Allowance	\$2,244,000
Estimated Construction Management/Inspection	\$224,400
<b>Subtotal</b>	<b>\$2,468,400</b>
<b>TOTAL PROJECT COST</b>	<b>\$2,788,019</b>

There are sufficient funds in the Wastewater Capital Budget to pay the design costs. Construction bidding is expected in July 2010.

**SUSTAINABILITY IMPACT:**

This project addresses replacement of a critical asset for the City's wastewater treatment process, which protects human health and the environment.

**PREPARED BY:** Joshua Haggmark, Principal Civil Engineer/LC/sk

**SUBMITTED BY:** Christine F. Andersen, Public Works Director

**APPROVED BY:** City Administrator's Office